

WHAT IS CLAIMED IS:

1. A leadframe comprising:
  - a outer dambar defining a central opening;
  - an inner dambar disposed within the central opening;
  - a plurality of contacts disposed within the central opening and attached to the outer dambar;
  - at least one die pad disposed within the central opening
  - a plurality of conductive traces extending from respective ones of the contacts toward the die pad; and
  - at least one tie bar attached to and extending between the die pad and each of the outer and inner dambars, the tie bar having at least two downsets formed therein such that the die pad, the outer dambar, and the inner dambar extend along respective ones of three spaced, generally parallel planes, the plane of the inner dambar being disposed between the planes of the die pad and the outer dambar.
2. The leadframe of Claim 1 wherein the tie bars are bent such that the contacts extend along the plane of the outer dambar.
3. The leadframe of Claim 1 comprising a plurality of tie bars attached to and extending between the die pad and each of the outer and inner dambars, each of the tie bars having at least two downsets formed therein.
4. The leadframe of Claim 1 wherein:
  - the outer dambar defines an opposed pair of longitudinal sides and an opposed pair of lateral sides; and
  - the contacts are attached to one of the lateral sides of the outer dambar.
5. The leadframe of Claim 4 wherein:
  - the inner dambar defines an opposed pair of longitudinal sides and one lateral side, the longitudinal sides of the inner dambar being attached to one of the lateral sides of the outer dambar; and
  - each of the longitudinal sides of the inner dambar includes at least two downsets formed therein having the same size and configuration as the downsets formed in the tie bar.
6. A memory card comprising:

a leadframe having:

a plurality of contacts;

at least one die pad defining opposed top and bottom surfaces;

a plurality of conductive traces extending from respective ones of the contacts toward the die pad; and

at least one tie bar extending from the die pad and defining a distal end;

at least one semiconductor die attached to the die pad and electrically connected to at least one of the traces; and

a body at least partially encapsulating the leadframe and the semiconductor die, the body defining opposed top and bottom surfaces and multiple side surfaces, the contacts being exposed in the bottom surface and the distal end of the tie bar being exposed in and substantially flush with one of the side surfaces and oriented in spaced relation to each of the top and bottom surfaces.

7. The memory card of Claim 6 wherein the traces and the tie bar are each bent in a manner such that the die pad and the contacts extend along respective ones of spaced, generally parallel planes.

8. The memory card of Claim 7 wherein the leadframe further comprises:

an inner dambar which is covered by the body, the tie bar being attached to and extending between the inner dambar and the die pad;

the tie bar being bent such that the contacts, the inner dambar, and the die pad extend along respective ones of three spaced, generally parallel planes, the plane of the inner dambar being disposed between the planes of the die pad and the contacts.

9. The memory card of Claim 8 wherein the semiconductor die is attached to the bottom surface of the die pad so as to extend along a die plane which is disposed between and generally parallel to the planes of the inner dambar and the die pad.

10. The memory card of Claim 6 further in combination with a skin attached to the body in a manner covering the top surface thereof.

11. The memory card of Claim 10 wherein the top surface of the die pad is exposed in and substantially flush with the top surface of the body, and covered by the skin.

12. A memory card comprising:

a leadframe having:

an inner dambar defining a central opening;

a plurality of contacts extending into the central opening;

at least one die pad disposed within the central opening and defining opposed top and bottom surfaces;

a plurality of conductive traces extending from respective ones of the contacts toward the die pad; and

at least one tie bar attached to and extending between the die pad and the inner dambar, the tie bar defining a distal end;

at least one semiconductor die attached to the die pad and electrically connected to at least one of the traces; and

a body at least partially encapsulating the lead frame and the semiconductor die, the body defining opposed top and bottom surfaces and multiple side surfaces, the contacts being exposed in the bottom surface and the distal end of the tie bar being exposed in and substantially flush with one of the side surfaces and oriented in spaced relation to each of the top and bottom surfaces.

13. The memory card of Claim 12 wherein the traces and the tie bar are each bent in a manner such that the contacts, the inner dambar, and the die pad extend along respective ones of three spaced, generally parallel planes, the plane of the inner dambar being disposed between the planes of the die pad and the contacts.

14. The memory card of Claim 13 wherein the semiconductor die is attached to the bottom surface of the die pad so as to extend along a die plane which is disposed between and generally parallel to the planes of the inner dambar and the die pad.

15. The memory card of Claim 12 further in combination with a skin attached to the body in a manner covering the top surface thereof.

16. The memory card of Claim 15 wherein the top surface of the die pad is exposed in and substantially flush with the top surface of the body, and covered by the skin.